

AMENDMENTS TO THE SPECIFICATION

Please insert the following new paragraph **[0017]**, after the existing paragraph **[0016]** on page 4 of the specification:

[0017] Fig. 6 is a plan view showing the structure of a rotor core.

Please amend existing paragraph **[0017]** (now paragraph **[0018]** after the insertion of the new paragraph **[0017]** discussed above) as follows:

[0017] Embodiments of the invention will hereinafter be explained with reference to the figures. FIG. 1A and FIG. 1B are a cross-section view and a longitudinal-section view showing a structure of a proportional rotary torquer according to the present invention. In FIG. 1A, reference numerals 1a and 1b denote two permanent magnets, which are secured on the inner surface of a yoke 2 that is a stator. The permanent magnet 1a has a north magnetic pole on the inside thereof and a south magnetic pole on the outside thereof (on the side facing the yoke 2). The permanent magnet 1b has a south magnetic pole on the inside thereof and a north magnetic pole on the outside thereof (on the side facing the yoke 2). A rotor core 3 has salient poles 3a, and one or more rotor coils are wound between the salient poles 3a. A rotor shaft 4 is provided at the center of the rotor core 3. In FIG. 1B, the above yoke 2 is secured on a holder 6 and a location holder 8. Bearings 7a and 7b, which rotatably hold the rotor shaft 4 penetrating the holder 6 and the location holder 8, are provided on the holder 6 and the location holder 8. The rotor coils 5 are connected to a current supply wiring 9 for supplying an exciting current. FIG. 2 shows a state in which an exciting current is supplied to the rotor coils 5 and the rotor core 3 rotates across 90 degrees.

Please amend existing paragraph **[0027]** (now paragraph **[0028]** after the insertion of the new paragraph **[0017]** discussed above) as follows:

[0027] In the above embodiments, in order to make the distance from the radial outline of the circumferential center portion of the salient pole 3a to the rotation

center of the rotor core 3 be smaller than that from the radial outline of the circumferential end portion of the salient pole 3a to the rotation center of the rotor core 3, the facing surfaces of the rotor core 3, which face the permanent magnets 1a and 1b, are formed in the shapes of circular arc surfaces having the center positions different from each other. Instead of this, the facing surfaces of the rotor core 3, which face the permanent magnets 1a and 1b, may be formed in the shapes of elliptical surfaces. The facing surfaces of the salient poles of the rotor core 3 at the circumferential end portions, which face the permanent magnets 1a and 1b, may be formed in the shapes of flat-cut surfaces. FIG. 6 shows flat-cut surfaces 10 formed by flatly cutting the facing surface, which face permanent magnets 1a and 1b, at the circumferential end portions of the salient poles of the rotor core 3.